

here about simple, practical methods for bounding problems, for determining sensitivities, for encoding probability, or for approximating risk preference.

And so we may ask again, for whom is the book written? In the preface, we find that it should be suitable for business schools and for economic and applied mathematics courses at the upper undergraduate and lower graduate levels. The author has doubtlessly thought about some of the problems that will arise when a typical business school student encounters a Jacobian determinant. This may explain why he has made Appendix 1 a chart of the Greek alphabet. However, I think that the problem lies at a deeper level. For business school students I find the book too mathematical relative to the insights it produces. For the mathematically inclined student, it seems to avoid many problems of real mathematical interest, such as how to assess uncertain functions as well as uncertain variables. For the practical student, such as the engineer, it falls short in presenting the links between theory and practice that are essential in application.

Thus, what might have been an interesting mathematical text on statistical decision theory falls somewhat short of its title as a treatment of decision analysis. The book is an extensive, meticulous, and well-written elementary text on decision theory for the mathematically inclined, but it is not an effective guide to either the philosophical comprehensiveness or professional practice of decision analysis.

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Groupes et anneaux réticulés, by Alain Bigard, Klaus Keimel and Samuel Wolfenstein, Lecture Notes in Math., vol. 608, Springer-Verlag, Berlin and New York, 1977, xi + 334 pp.

The book under review is a study of groups and rings which carry a (necessarily distributive) lattice structure in such a way that the group operation distributes over the lattice operations, and in addition, in the case of rings, products of positive elements are positive.

The study of algebraic systems where an order relation is introduced, compatible with the algebraic operations, does not have a long history. While various algebraic generalizations of the real number field have been the subjects of extensive theories in the 19th century (quaternions, matrix and linear algebras etc.), the importance of order relation in algebra has been completely overlooked. The explanation for this might be found in the absence of total order in the complex number field and in the old opinion that inequalities serve to express continuity and as such they are alien to algebra.

Towards the end of the last century, the necessity of order relation in algebraic systems emerged in the foundations of plane geometry (D. Hilbert): the collection of coordinates on the line had to be made into a totally ordered field. In this respect, a decisive role was played by the archimedean axiom which was listed by Hilbert (along with the completion axiom) among the